THE SIGNAL

Newsletter of the Bella Vista area Radio Club

Arkansas' Largest Amateur Radio Club

- August meeting – The Magic of SDRs
- Announcing the First Ever Amateur Extra license class
- Announcing Ham Radio Jump Start Saturday
- BVRC Webmaster Develops “Callsign Finder”
- Announcing the 2026 Maker Faire
- Experimenter’s Corner – Tower Tilt-Over Base
- Senator Cruz Praises Volunteers
- The Power of the Weekly Repeater Net
- Serving the Flag and the Frequency
- Chasing the World
- DXCC Den – Brunei Darussalam

SEPTEMBER 2026

Monthly Meetings: 1st Thursdays @ 7 p.m.
Arkansas Law Enforcement Training Academy (ALETA)
3424 S. Downum Road, Springdale AR
(HAM 101 Workshop for Newcomers @ 6pm preceding meeting)

Club Calls: N5BVA / W5NX

(Repeater Nets) (Contesting, Operating, Special Events)

BVRC Twin Linked Repeaters:

Bella Vista: 147.255 +600 khz offset, pl 162.2
Springdale: 444.100 + 5 MHz offset, pl 162.2

Website: www.bellavistaradioclub.org

BELLA VISTA RADIO CLUB ARKANSAS

The Largest Amateur Radio Club In Arkansas!

Serving members in northwest Arkansas, southwest Missouri, & northeast Oklahoma

WEEKLY BVRC NETS

Mondays @ 7 pm on the WX5NAS Skywarn Link System

Bentonville – 146.865, -offset, pl 103.5
Springdale – 147.315, +offset, pl 97.4
Fayetteville – 147.315, +offset, pl 110.9
Huntsville – 443.625, +5 MHz, pl 97.4
Green Forest – 145.310, -offset, pl 103.5

Wednesdays @ 7 pm on the BVRC Dual Linked Repeaters

N5BVA/Bella Vista
147.255, +offset, pl 162.2

N5BVA/Springdale
444.100, +5 MHz, pl 162.2

Sunday Afternoons
4:00 pm during CST
4:30 pm during CDT

3.830 MHz

Fridays @ 7 pm on the BVRC Dual Linked Repeaters

N5BVA/Bella Vista
147.255, +offset, pl 162.2

N5BVA/Springdale
444.100, +5 MHz, pl 162.2

NEXT BVRC MONTHLY MEETING

THURSDAY, SEPTEMBER 3, 2026 @ 7PM
ARKANSAS LAW ENFORCEMENT TRAINING ACADEMY
3424 S. DOWNUM ROAD
SPRINGDALE, AR

September Meeting Information

HAM 101 Workshop, 6pm preceding monthly meeting – BVRC member James Bennett – KA5DVS will be the Workshop moderator for the September session. James owns and operates QRP Kits, a great company with great products for DIY enthusiasts. James has a wealth of knowledge in the hobby, and will be sharing the topic "Antenna Basics – How Antennas Work". It will definitely be a fun and informational Workshop, so don't miss out.

BVRC August meeting, 7pm – A special treat is in store for club members for the July meeting as BVRC welcomes special guest speaker Dave Casler – KEØOG. Dave resides in Ridgeway, CO and has been a ham and ARRL member for over 40 years. He is also the author of the excellent "Ask Dave" column in each monthly issue of QST. Dave has a wealth of technical knowledge in all aspects of our hobby and for the September meeting will be spotlighting the topic "When You Have Nothing Tall – Mast Ideas".

SEE YOU THEN!

BOARD MEMBERS

PRESIDENT
Jan Hagan - WB5JAN
wb5jan@arrl.net

VICE PRESIDENT
Kathy Bromley - WQ5T
wq5t@arrl.net

SECRETARY
Sharron Edmondson - KC5SKY
grannysharr@gmail.com

TREASURER
Marc Whittlesey - WØKYZ
almarc11@yahoo.com

TECHNICAL OFFICER
Jon Williams - K5DVT
opk5dvt@gmail.com

N5BVA TRUSTEE
Roger Dickey - KJ4QIS
dickeyr@gmail.com

BOARD MEMBER AT LARGE & PUBLIC INFORMATION OFFICER
Tom Northfell - W5XNA
w5xna@arrl.net

APPOINTED OFFICERS

EDUCATION & ELMER 911 COMMITTEE
Chair: Vinson Carter - WV5C
vinsoncarter@gmail.com

NETS COMMITTEE
Chair: Stephen Ponder - N5ZE
stponder@gmail.com

MEMBERSHIP COMMITTEE
Chair: Tom Northfell - W5XNA
w5xna@arrl.net

SOCIAL MEDIA & COMMUNITY OUTREACH COMMITTEE
Chair: Alex Smith - KI5EQK
ki5eqk@gmail.com

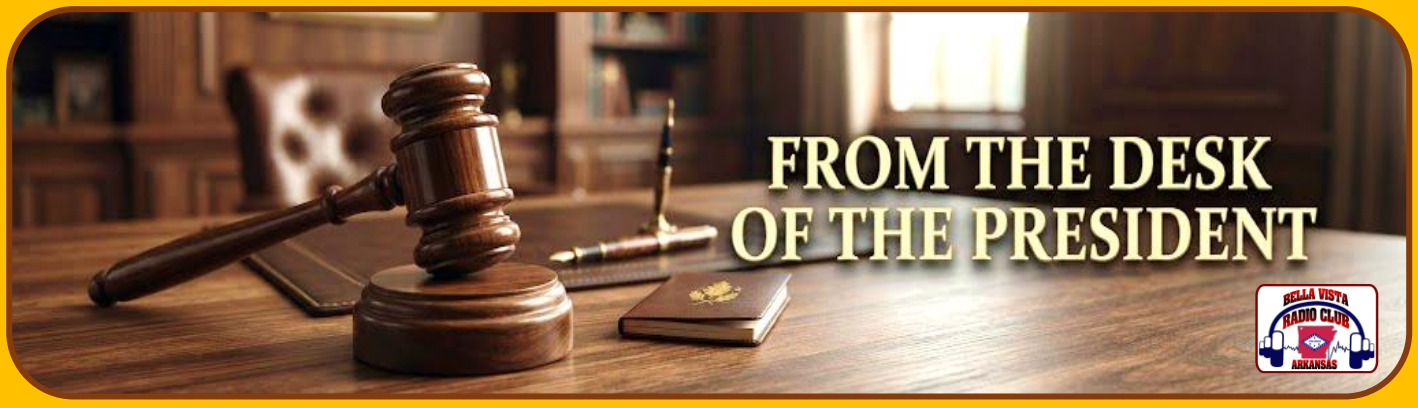
EMCOMM COMMITTEE
Chair: Drake Rush - KJ5MXM
drakerush1@hotmail.com

W5NX TRUSTEE & CLUB STATION MGR.
Jay Bromley - W5JAY
jayw5jay@outlook.com

WEBMASTER
Roger Dickey - KJ4QIS
dickeyr@gmail.com

VE TESTING COMMITTEE
Chair: Don Banta - K5DB
arsk5db@gmail.com

NEWSLETTER EDITOR
Don Banta - K5DB
arsk5db@gmail.com



One of the hallmarks of our Bella Vista Radio Club's culture is to support and involve our members in our club's activities, programs and events. From our interactive meetings to our nationally recognized newsletter and club website, engaging our members in their journey through their amateur radio hobby is a major part of our club's mission.

Perhaps the most important part of BVRC's yearly calendar is just about upon us. There are three important tasks for our members to take part in during the months leading to the end of the year.

First is the opportunity for our members to help recognize, award, and celebrate those in the club whose contributions have stood out during the year. Your input will help guide the Board to identify those who are most deserving of recognition. You will soon be asked to make recommendations to the Board to help the Board select the most deserving members for each annual award. These awards include:

Rookie of the Year
Volunteer of the Year
Presenter of the Year
Elmer of the Year
Ham of the Year
Special Service Award(s)

Next, our annual Board election process is an opportunity for our members to elect or reaffirm our club's Board of Directors for the following year.

Starting in October, our members will be able to make nominations for Board positions. BVRC Board positions include:

President
Vice President
Secretary
Treasurer
Public Information Officer
Technical Officer
Repeater Trustee
Member at Large*

** The Member at Large Board position is filled by the immediate past president of BVRC and is not an elected position.*

Finally, our members will all be encouraged to celebrate our hobby, our club's activities of the past year, and enjoy the fellowship of our members and their guests at our annual Christmas and Awards Banquet held in December. This is a special event indeed where our annual awards are announced, our Board membership for the following year is announced, and a sneak peek at some of next year's wonderful activities is shared in an evening of fun, celebration, and camaraderie.

Yes, the months leading up to the end of the year are important for our members. Your input will be an important part of how our club continues to meet our mission of serving our members in their amateur radio hobby.

73,
Jan – WB5JAN

While it was an “oven” outside, BVRC members enjoyed the cool comfort of the August 2026 meeting in the wonderful auditorium of the new ADLEST building on the Arkansas Law Enforcement Training Academy complex. BVRC will continue to meet in this room until remodeling is completed in the original ALETA building, which is still indefinite but appears to be for several more months.

BVRC valued member and veteran ham Mark Whatley – K5XH returned to the speaker’s spotlight with this month’s program on “The Magic of SDRs” (Software Defined Radios). Mark has graced the club with several great previous programs and tonight, once again, he did not disappoint. He basically took what could have been a very deep, confusing, and technical program, and made it easy to understand for the layman operator.

Basically, an SDR takes an analog signal from the airwaves. The signal then runs through an ADC (Analog to Digital Converter), which then passes through a FPGA (Field Programmable Gate Array), then the digital audio and RF signal are displayed on the radio screen and heard through the speaker.

As Mark shared, the “magic” of this processing is that older radios had to complete this process with old-style

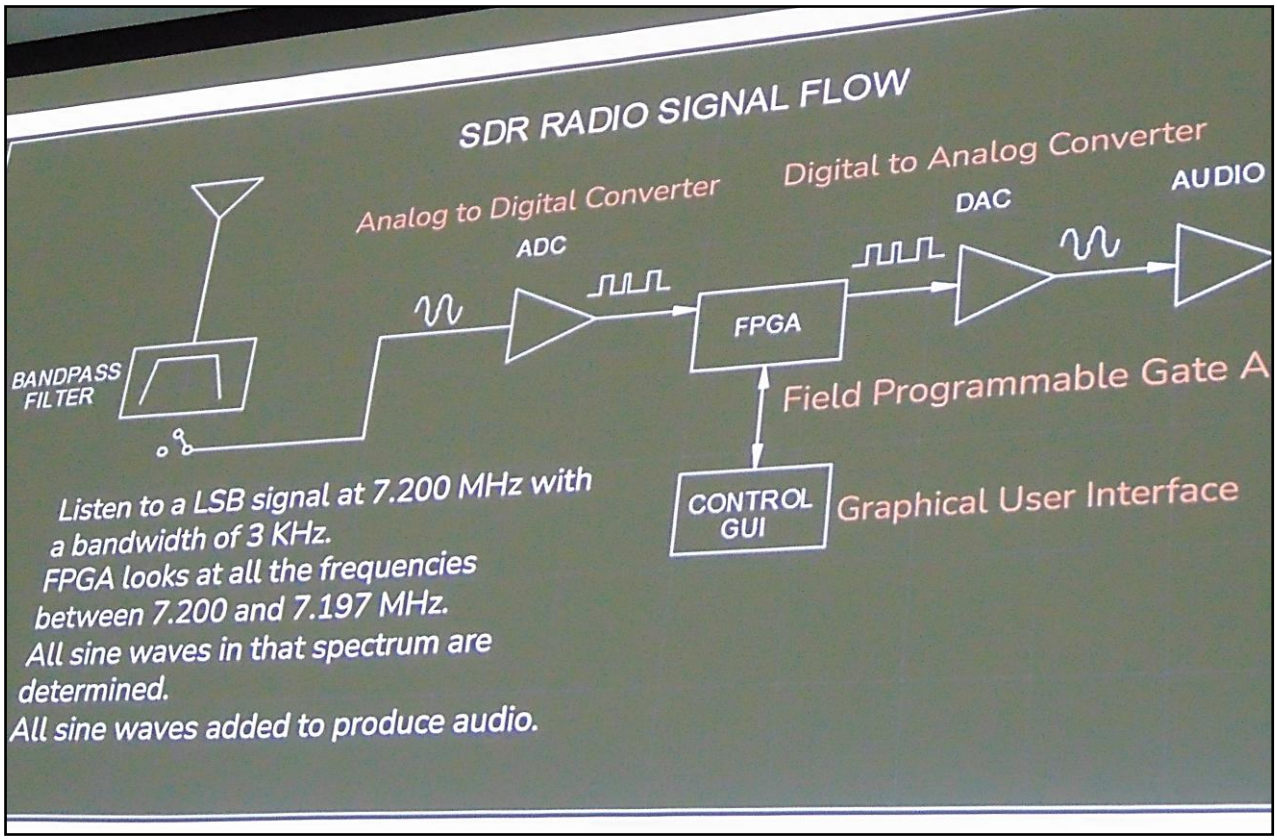
analog components. The new SDRs have replaced all those components with the compact FPGA, which is only about 1.5 - 2" square. This makes the transmitting and receiving process in SDRs faster, more efficient, and resulting in cleaner signals being transmitted and received.

An amazing point that Mark brought out in his presentation was concerning the 18th and 19th Century French mathematician and physicist Joseph Fourier (1768-1830).

THE MAGIC OF SOFTWARE DEFINED RADIOS
FROM HF TO SPACE... IT'S JUST SOFTWARE!
CAFFEINE + ANTENNAS = MAGIC
CQ CQ THIS IS SOFTWARE WIZARD
WARNING: MAY CAUSE RADIO ENVY & SUDDEN UPGRADES
EXPLORE. LEARN. SHARE. THAT'S THE AMATEUR RADIO WAY!
Mark – K5XH

Fourier is best known for initiating the investigation of Fourier series, which eventually developed into Fourier analysis and harmonic analysis, and their applications to problems of heat transfer and vibrations. The Fourier transform and Fourier's law of conduction are also named in his honor.

To make a long story short, Fourier's discoveries and analyses have survived and progressed over the centuries to evolve into some of the fundamental principles of Software Defined Radios. Below is a block diagram from Mark's presentation of how a SDR works:


SDR RADIO SIGNAL FLOW
Analog to Digital Converter
ADC
Digital to Analog Converter
DAC
AUDIO
BANDPASS FILTER
FPGA
Field Programmable Gate A
CONTROL GUI
Graphical User Interface
Listen to a LSB signal at 7.200 MHz with a bandwidth of 3 KHz.
FPGA looks at all the frequencies between 7.200 and 7.197 MHz.
All sine waves in that spectrum are determined.
All sine waves added to produce audio.

Mark shared that SDRs have already transformed amateur radio by moving many functions traditionally performed by hardware into software. Filters, demodulators, spectrum analyzers, and even transceivers can now be implemented with software running on computers, embedded processors, and FPGAs. The future promises even more exciting developments.

One of the cornerstones of Mark's program is the (mentioned earlier) Field Programmable Gate Array (FPGA).

Mark said FPGAs perform:

- Faster processing
- Adaptive filtering algorithms
- Noise reduction
- Real-time signal analysis
- Features only found in commercial or military

All these things will become mainstream.

Mark concluded with, "Amateur radio equipment has evolved from spark, to vacuum tubes, to transistors, and to integrated circuits. The next step is SDR.

Thanks for another superb presentation, Mark. We look forward to see what you have up your sleeve for another great future program!!!

Where Do I SSTV?
Main SSTV Calling Frequency is on HF
- 14.230 on 20 meters is the "typical" spot for slow scan contacts between terrestrial stations
Brandon – W5BNL

Preceding the August program, the HAM 101 Workshop featured BVRC's Brandon Gage – W5BNL, who presented the almost packed room with a well-organized and fun participation program on Slow Scan TV. SSTV was actually invented in 1958 by Copthorne Macdonald. It kept progressing during the next decade, being extensively used in the Mercury, Gemini, and Apollo series space flights. It took off on the ham bands in 1968 when the FCC approved the mode for amateur radio use. Even though SSTV is an older mode, it is still very popular and used worldwide. Brandon discovered the mode shortly after acquiring his General license and has passed that excitement on to many members in club, who now gather on Friday evenings on the BVRC dual repeaters for The Slow Scan Show. (Information on page 2.) Join in on the fun! *THANKS, BRANDON!*

The Bella Vista area Radio Club is pleased and excited to announce BVRC's first class for the Amateur Extra license. The class will be directed by ARRL Certified Instructor Brian Harris – WA5UEK.

Because the Amateur Extra covers more material than the Technician and General licenses, the classes will meet on Saturdays and Sundays over two consecutive weekends, for a total of 4 class sessions.

CLASS DATES: Saturday/Sunday, November 7 & 8
Saturday/Sunday, November 14 & 15
(exam session follows conclusion of the final class on the 15th)

CLASS DURATION: 9:00 am – 4:00 pm each day

CLASS LOCATION: Arkansas Law Enforcement Training Academy (ALETA)
3424 S. Downum Road
Springdale, AR

TO REGISTER FOR THE CLASS, CLICK HERE

FOR ANY ADDITIONAL CLASS INFORMATION,

CONTACT DON – K5DB

arsk5db@gmail.com

BVRC VE REPORT
From Don Banta – K5DB
BVRC VE Coordinator
August 2026

CONGRATULATIONS!

CHRIS JOHNSON – KE4EIF – NEW AMATEUR EXTRA!
SHAWN ROGERS – KJ5MDW – NEW AMATEUR EXTRA!
PATRICK HARRIS – KI5MFA – NEW GENERAL!
MARK HUBER – KJ5LHQ – NEW GENERAL!
CANAAN JOHNSON – KJ5EMJ – NEW GENERAL!
DEBRA JOHNSON – KI5WUI – NEW GENERAL!
MILES LOWE – N5MLO – NEW GENERAL!
KYLE MCDANIEL – KJ5RFL – NEW GENERAL!
JASE ROGERS – KJ5OJE – NEW GENERAL!
CARLA SLOAN – KJ5LTG – NEW GENERAL!
CAROL WINKLE – W5CDW – NEW GENERAL!
DAVID ALDERSON – KJ5RJU – NEW TECHNICIAN!
DEL HINES – KJ5RJV – NEW TECHNICIAN!
JAMES MYERS – KJ5RJQ – NEW TECHNICIAN!

Next month's exam sessions

- ***September 5, 10 am – Shiloh Museum of Ozark History, 118 W. Johnson Ave., Springdale***
- ***September 12, 2 pm – Bella Vista Public Library, 11 Dickens Place, Bella Vista***

If you wish to test, you must register for an exam session.
To register, and for additional instructions,
go to the 'TESTING' tab on the BVRC website:

https://bellavistaradioclub.org/testing/

WELCOME New BVRC Members!

Ray Bingham – KC7HOP – Elm Springs
Nancy Bingham – KC7ZTE – Elm Springs
Hunter Comer – KJ5RJH – Alma, AR
James Myers – KJ5RJQ – Van Buren, AR
David Alderson – KJ5RJU – Bentonville
Del Hines – KJ5RJV – Shirley, AR

Not Quite Ready to Ask a Question on the Air?

That's Okay!

Every amateur radio operator was new at one time, and most of us remember what it felt like to key the microphone for the first time. If you're a little hesitant to ask a question over the air during the Monday night HAM 101 Net, you're not alone. It's perfectly normal to feel a little nervous.

That's why there's another easy way to participate.

Simply visit the HAM 101 Net page on the BVRC website (https://bellavistaradioclub.org/bvrc-club-nets/) and complete the Question Submission form. Or, you can go directly to the form right now if you wish, by clicking **HERE**. When you're finished, click SEND. Your question will be delivered directly to the Net Coordinator.

Then, tune in to the next scheduled Monday night HAM 101 Net and listen as your question is presented to the group and discussed on the air. You'll hear a variety of answers and perspectives from experienced operators—all without having to key the microphone yourself.

You'll probably find that after listening to your first question being answered, your confidence will grow. Before long, you'll feel comfortable keying the mic and asking your own questions on the air.

Remember, the HAM 101 Net is a friendly place to learn. Whether you ask your first question through the website or over the air, we are there to help you build your knowledge and confidence. We look forward to hearing from you – whichever way you choose to participate!

Tuning In Together: Bella Vista Radio Club Launches 'Ham Radio Jump Start Saturdays' for New Hams

For anyone newly licensed in the world of amateur radio, the initial excitement of passing the exam can quickly turn into a wave of feeling technically overwhelmed. You have the call sign, but looking at a radio dashboard full of complex menus, article after article on the "best" antenna, and bundles of coaxial cable can make the hobby feel incredibly intimidating.

Recognizing that the learning curve can be steep, in addition to our already three great options that newcomers to the club can avail themselves to (HAM 101 weekly net, HAM 101 monthly workshop, and Elmer 911 help tab on the club website), BVRC is launching a new initiative designed to bridge the gap between passing the test and getting on the air:

Ham Radio Jump Start Saturdays.

As the largest and most active amateur radio club in Arkansas, BVRC has turned the daunting transition from "book-smart technician" to "active operator" into a hands-on, easy going community gathering for newcomers.

Held every fourth Saturday of the month, **Ham Radio Jump Start Saturdays** are designed specifically for newcomer hams who thrive in a personalized, one-on-one learning environment. Instead of a formal lecture or a rigid classroom setting, the event operates as an interactive, hands-on laboratory driven entirely by the questions and needs of the attendees.

At the heart of **Ham Radio Jump Start Saturdays** is a time-honored amateur radio tradition: the "Elmer."

In ham radio culture, an Elmer is an experienced mentor who volunteers their time, patience, and expertise to guide newcomers through the technical weeds.

"Every veteran operator remembers what it felt like to be new and unsure," as one of our club Elmers has stated. "Amateur radio is incredibly broad. You can explore everything from local emergency communications to bouncing signals off the moon to talking around the globe. Ham Radio Jump Start Saturdays are all about pairing newcomers with a friendly Elmer who can break it down, one-on-one, at the newcomer's own pace."

Passing the test is just the ticket to enter the amusement park.....Ham Radio Jump Start Saturdays are where we actually teach you how to ride the roller coasters."

The objective of the event is simple: If you are unsure about it, bring it in!

Newcomers are encouraged to bring their questions, their problems, and, if needed, their actual equipment. Whether you have a pocket-sized handheld transceiver (HT), a mobile rig destined for vehicle or home use, or a complex High Frequency (HF) base station still sitting in its factory box, the club's Elmers are ready to help. The sessions are designed to assist beginners across a wide spectrum of topics, including:

• **Radio Operation:** Learning how to program, navigate, and operate both older classic models and the newest software-driven transceivers. Whether you are trying to figure out the menu programming on a modern digital radio, or navigate the dials of a legacy analog rig, someone will be there to walk you through it step-by-step.

• **Antennas & Coax:** Figuring out which wire or aluminum antenna works best for your space, understanding different types of coaxial cables, and learning how to feed your radio safely.

• **Operating Etiquette:** Demystifying on-air protocols, repeaters, and how to confidently make your very first contact. Pressing the Push-To-Talk (PTT) button for the first time can sometimes cause serious "mic fright". You can practice making contacts, understanding repeater offsets, and navigating on-air protocols in a supportive, zero-stress environment.

• **Troubleshooting:** Working through any roadblock, technical glitch, or facet of the hobby that a new operator is unsure of.

Large crowds and fast-paced events can sometimes easily cause information overload. **Ham Radio Jump Start Saturdays** are purposefully engineered to be the exact opposite. There are no large crowds, no agendas, no strict timelines, and no expectations.

It's a space built for the curious ham who wants to take their time, tinker with equipment, and truly understand how their equipment functions. It's also the perfect place for newcomers to begin their amateur radio journey. Unlike large club meetings where it can be difficult to ask questions or get individual attention, **Ham Radio Jump Start Saturdays** offer a small, friendly, and informal setting where new hams can learn at their own pace.

Experienced Elmers are available to provide one-on-one guidance, answer questions, demonstrate equipment, and help build confidence through hands-on learning. Whether you're studying for your license, programming your first radio, or simply curious about the hobby, **Ham Radio Jump Start Saturdays** provide a welcoming environment where learning is personal, practical, and enjoyable. If you've been hesitant to attend a standard club net or meeting because you prefer a quieter, highly focused environment, this program was designed with you in mind.

Whether you want to solve a specific programming issue, build your first antenna, or simply sit down with a cup of coffee and talk shop with an expert, **Ham Radio Jump Start Saturdays** are your open invitation to take the next step in your amateur radio journey.

By creating a relaxed, pressure-free environment, the Bella Vista area Radio Club hopes to transform hesitant beginners into active, confident operators who enrich our local amateur radio community.

Ham Radio Jump Start Saturday

- **When:** The 4th Saturday of every month.
  (First session on August 22!)
- **Time:** 9:00 am – 12 Noon
- **Where:** Arkansas Law Enforcement Training Academy (ALETA), 3424 S. Downum Road, Springdale
- **What to Bring:** Your questions, your radios (handheld, mobile, HF, etc.), power supplies, manuals, etc., and an open mind.
- **Cost:** Free and open to all newly licensed amateurs or anyone looking to get back into the hobby.
- **Future Dates:** August 22, September 26, October 24

If you've been letting your gear gather dust, or if you're simply looking for a friendly face to guide you through your next step in amateur radio, pack up your radios and head over to the next **Ham Radio Jump Start Saturday**. Your Elmer is waiting.

If you would like more information about the event, contact Don-K5DB at: **arsk5db@gmail.com**

Just as drivers love to customize their rides with unique vanity license plates, many amateur radio operators dream of securing that perfect vanity callsign. Whether it's matching your initials, grabbing a shorter "1x2", "2x1", or "1x3" call, or tracking down a relic from a specific radio call district, a vanity callsign is the ultimate badge of personal identity in the ham community.

However, anyone who has ever tried to hunt down an available call sign knows the struggle. For the past decade and more, vanity search websites have often felt like relics of the early internet – difficult to navigate and frustrating to decipher.

Enter callsignfinder.com.

Developed and maintained by BVRC's own stellar webmaster, Roger Dickey – KJ4QIS, **Callsign Finder** is a brand-new website designed to bring the vanity search into the modern era. Roger, a licensed ham for 17 years, has poured his extensive professional IT talents into creating a tool that makes the quest for a new callsign streamlined, intuitive, and remarkably easy.

What sets **Callsign Finder** apart isn't just its clean user interface, but the comprehensive guide built right into the platform. Packed with vital, actionable information, the site helps vanity seekers effortlessly navigate the often-confusing FCC rules. Users can instantly see which call signs are currently available, determine exactly what formats they are eligible to apply for based on their current license class, and follow step-by-step instructions to ensure their application is accepted by the FCC, and not rejected to an application error on their part.

Whether you are a newly licensed Technician looking for your first custom call, or an Extra Class operator hunting for a rare format, Roger's new tool takes the guesswork out of the system.

If you've been thinking about pursuing a vanity call, give Roger's new **Callsign Finder** website a test drive.

To visit the Callsign Finder website, click here: **https://callsignfinder.com/**

To view the easy to follow user's guide for the website, click here:
https://go.callsignfinder.com/vanity-callsign-guide.pdf

Maker Faire® NWA

September 12, 2026

From BVRC Maker Faire Coordinator James Bennett – KA5DVS:

BVRC is participating for the second year in the local NWA Maker Faire, to be held on September 12, 2026.

Maker Faire is a gathering of all types of folks who are brought together by a shared interesting in building, tinkering and experimenting.

Maker Faire is an offshoot of Maker Magazine a publication for folks who build, tinker and create things. The first Maker Faire was held in San Mateo California in 2006 and has grown to over 200,000 attendees each year. Numerous other Maker Faires have sprung up around the USA and world. At many if not most of these, local ham clubs are encouraged to participate by demonstrating and answering questions about Amateur Radio.

We are fortunate to have both a Maker Faire in our backyard here in Fayetteville and another earlier one nearby in Tulsa coming up on August 29, 2026:

https://makerfaire.com/
https://tulsa.makerfaire.com/attend/
https://nwa.makerfaire.com/

BVRC participated last year with a booth to educate visitors about ham radio and by all accounts, it was a great success. Volunteers are needed to help staff the booth again this year and tell visitors about ham radio and share what it means to you. The event runs from 10AM to 4PM on Saturday September 12.

If you are interested in joining us and helping at the booth, please contact me at ka5dvs@gmail.com or text: 408-394-1873 to be added to the list.

Even if you cannot assist, please consider attending to support the event. If you create things, please consider participating as an exhibitor. Noncommercial exhibits are usually free and if you want to sell items, there is a small charge.

Thanks, and 73!
James – KA5DVS

In Memoriam

Dennis Walker – KEØVQL
1951 – 2026

Jeremy – K9DPT (L)
with his dad, Dennis – KEØVQL (R)

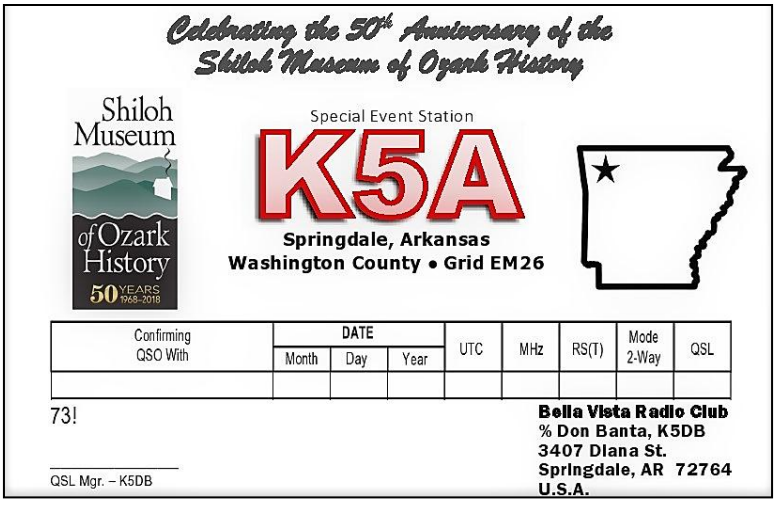
It is with deep regret that The Signal reports Dennis Walker – KEØVQL became a Silent Key on July 20, 2026. Dennis, and his son Jeremy, have been long time members of BVRC and have attended many club meetings and several Field Days in years past. It's always a pleasure to see Jeremy, as was the case with Dennis when he was able to attend.

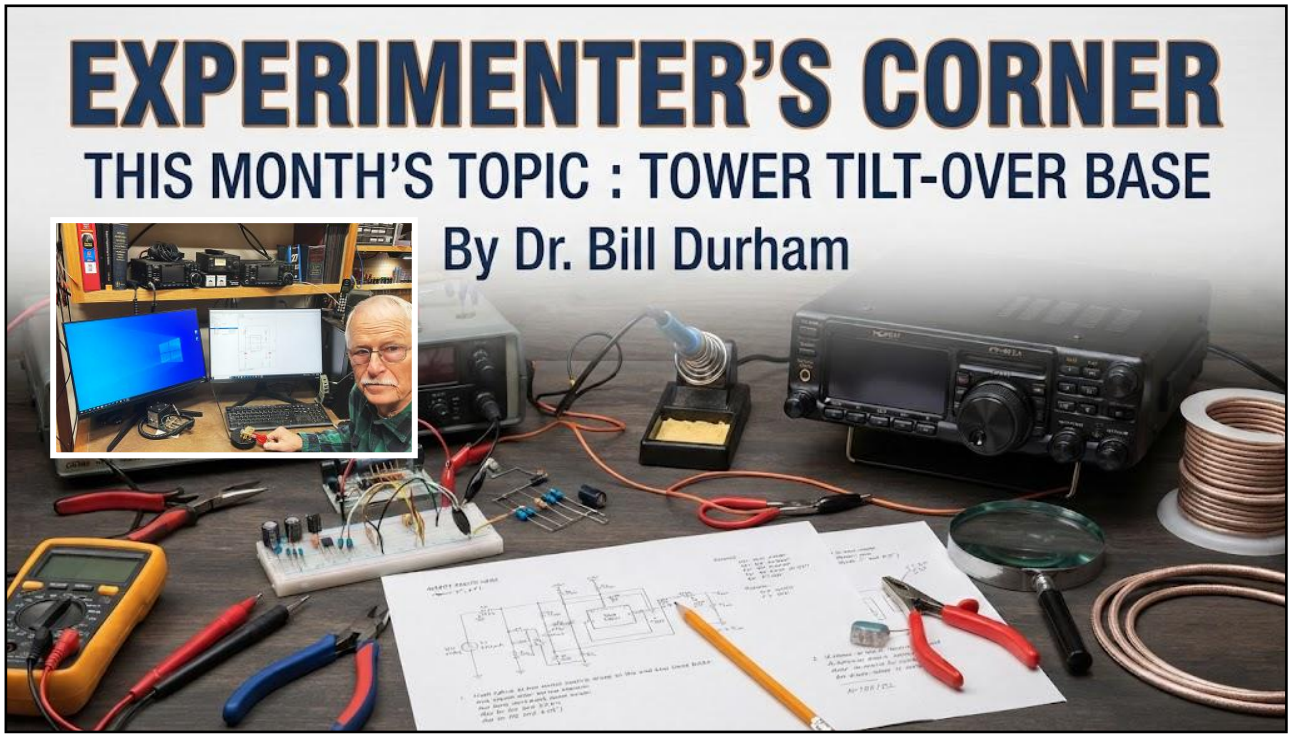
In September of 1969, Dennis enlisted in the United States Army and served his country faithfully for 29 years. His military career was a source of great pride, and he carried himself with the discipline, honor, and commitment that came from a lifetime of service. He retired from the Army in December of 1998, having devoted nearly three decades to protecting and serving his nation.

Our thoughts and prayers are with Jeremy and his family at this time. RIP Dennis. (Thanks to Ron-K5XK for the photo of Jeremy & Dennis at a past BVRC Field Day.)

FLASHBACK

BVRC's K5A Special Event Station QSL card from August 2018, when the club operated from the grounds of the Shiloh Museum of Ozark History, helping them commemorate the 50th anniversary of the museum.





Those of you that were at this year's Field Day got to see the debut of Stan Stockton's (K5GO) triband (10, 15, 20 meter) antenna mounted on a 30 foot Rohn-25 tower. In order to accommodate the restrictions at the park, Stan asked me to build a tilt-over base. He showed me the design sold by Rohn. The plan was to stake the base to the ground so that it could be removed easily after the event and for use next year. As an added bonus, I would get to "store" the antenna at my shop. Thus, I envisioned a concrete slab with threaded rod in place of steel stakes. There was some interest expressed by the members in building something like it for their own station. So, the following is a description of the construction and design details. The exact dimensions are not important so view this in the light of your own build.

The commercial Rohn tilt-over base is made with a ¼" steel base. I opted for a 3/8" base, 20 x 24". Three-eight's steel plate is a bit hard to come by in our area unless you want a 4 x 8' sheet that weighs on the order of 4-500 pounds. Fortunately, I found a "drop" at Davis Metal in Fort Smith that was 20 x 48". A "drop" in the metal business is a piece leftover from a previous customer. I got it for $120 which is about $80 less than my original target piece. It weighed well over 100 lbs., but it fit easily into my car. I got it into the shop with a little help from my son (he wanted me to buy the hole sheet for possible use in the future).

I cut the piece down to 20 x 24" using a plasma cutter with a motor drive I built for making tabletops. With the proper cutting speed, the cut-edge requires only minor clean-up for most projects. The remaining half of the steel plate was cut into a large triangle to fit the tower legs. The tower legs form

an isosceles triangle with 11 ¼ " between the centers of the legs. I drew the triangle and then centered some appropriately sized washers at the corners. I then drew lines tangent to the washers as the final cut-lines. The plasma cutter was used again. I left one pointed end and rounded the other two with a band saw to serve as a reference for assembly.

I decided to use 5" long pieces of 1/1/2" pipe (Menards in Joplin) to hold the tower legs. This is a departure from the Rohn design which uses steel rods that fit inside the tower legs. In my design, the tower legs fit into the pipes. In the Rohm design the steel pins can only be welded to the triangular base. In my design the pipes are also welded to the triangular plate, but I have the additional option of welding some flat bars between the upper edge of the pipes. Given the stress at the base of the tower legs, I felt it was important to provide as much strength as possible. I also drilled ¼" holes through triangle plate at the bottom of the pipes to prevent water from being trapped in the pipes.

The process of welding can cause a great deal of difficulty when parts need to fit together. In the present case, the alignment of the pipes had to fit very closely with the tower legs. Welding tends to twist the metal because of the great heat involved. There are few things that will help but none are fool-proof. I started the welding with one pipe clamped as securely as I could to the triangle plate (pointy end). The plate was also held down on a steel table with clamps. I tacked all around the pipe then allowed it to cool some and checked to make sure the pipe was perpendicular to plate. Once I was satisfied with the alignment, I put a heavy bead around the base, cooled and checked the alignment again.

The next pipe was similar, but I actually used the tower to place the pipe on the triangle. I used a chain hoist to pick up the antenna vertically and place it properly on the triangle. Again, lots of clamps, etc., followed by tacks before the final bead. Slow and careful work because there would not be any way to move the pipe once it was welded in place.

The third pipe was done the same way, all along hoping the tower would fit and be removable. It fit and it was removable but with a lot more effort than I wanted. At that point I discovered that the pipe had a welded seam on the inside that was causing a problem with the fit. A bit of filing, grinding and scraping worked to remove much of the seam and the fit was just what I was after. The remaining construction was all done with scarps from around the shop.

The next step was the addition of the metal bars, 2 x 1/8", between the tops of the pipes. These were carefully cut to fit between the pipes snuggly (no pushing or gaps). All three pieces were tacked in place before the final beads were added. I double checked the fit just to make sure that the welding did not move the pipes out of alignment.

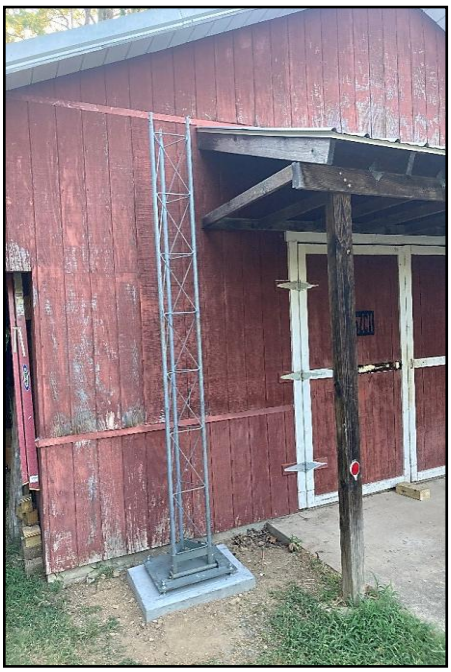
The pivot was made from a ½ steel pipe cut to fit across one side of the triangle with a little extra on the ends to hold the receiving ends of the pivot axel. The pipe was welded nearly flush with the bottom of the triangle to allow the triangle to fit close to the base. Again, lots of tacks before the final beads, careful and slow to avoid warping. This is also a departure from the Rohm design which uses a much smaller hinge arrangement.

The final pieces on the triangle were two pieces of ¼" x 2" angle iron, roughly two inches long. These were drilled to hold 1/4" bolts near the centers to mate with similar pieces on the base plate. The set holds the antenna to the base plate after it is lifted up.

The base plate was relatively simple. Four 7/8" holes were drill around the perimeter for the stakes. Initially, the holes help ¾" concrete forming stakes, later they will be used to hold the base plate down with ¾" threaded rods buried in the concrete pad.

Two sets of angle iron were welded in place. The first two were 3/8" x 3", cut down a bit for clearance. These were drilled to hold the pivot axel, a ½' piece of drill rod. The triangle plate was used to hold pivot axel with the two angle iron pieces on the axel. Once the proper clearance was established and the tilting motion was working, the pieces were welded in place. I drilled and taped the pivot axel to hold ¼ x 20 bolts and washers to retain the axel between the pieces of angle iron. If you look carefully at the picture you will notice grooves on the angle iron. These were cut to provide clearance for washers used to retain the axel in place.

Once the pivot was completed, it was assembled to fix the location of the final pieces of angle iron that hold the triangle in place. Holes were drilled in these to mate with the angle iron pieces on the triangle. The bolts were added to hold everything in place and these last pieces of angle iron were welded in place. In reality, I did a lot of back and forth adjustments with the triangle and the axel the angle iron pieces.



The photo at left shows the first section of tower in its "storage location".

From ARRL ...

Senator Ted Cruz Praises Amateur Radio Volunteers for Emergency Preparedness

Texas U.S. Senator Ted Cruz, in a strong pre-Memorial Day message, publicly highlighted the critical role Amateur Radio Service volunteers play during disasters. He praised and thanked ham radio operators who provide essential communications when storms and emergencies knock out power and cellular networks. Senator Cruz observed that in these emergencies, it is ham radio operators who step forward, bringing with them the tools, the expertise, and the commitment to reconnect people when it matters most. He noted that this dedication was demonstrated in 2017 when Hurricane Harvey's catastrophic flooding devasted communities across Texas, and it was demonstrated again in the horrific Camp Mystic floods. He emphasized that as the nation prepares for yet another storm season, ham radio's role remains vital.

Senator Cruz is the chairman of the Senate Committee on Commerce, Science, and Transportation. His comments align with ARRL's ongoing efforts to strengthen and protect amateur radio's role in emergency preparedness and public service communications.

Senator Ted Cruz

His comments also reflect growing congressional recognition of the value amateur radio operators bring to communities across the country. ARRL's nationwide grassroots campaign supporting the bipartisan Amateur Radio Emergency Preparedness Act has generated more than 155,000 letters to members of Congress in support of H.R. 1094 and S. 459. The legislation seeks to ensure that amateur radio operators can install and maintain effective outdoor antennas at residences where private land-use restrictions might otherwise prohibit them, helping communities maintain resilient emergency communications capabilities during disasters.

ARRL Legislative Committee Chairman and West Gulf Division Director John Robert Stratton – N5AUS said the continued outreach effort has required "long hours on the ground and an uncountable number of personal of meetings with senators, representatives, and their staffs" to raise awareness of amateur radio's importance.

"The most recent proof that those efforts have [increased] – and are increasing – congressional support for amateur radio is evidenced by the decision of Chairman Cruz to publicly share his personal views on the value and importance of amateur radio to the nation, Stratton said.

ARRL encourages operators who have not as yet done so to participate in the letter-writing campaign at: **www.send-a-letter.org/HOA** in support of the Amateur Radio Emergency Preparedness Act.

To view Senator Cruz's two-minute message, click **here**.

For newly licensed hams and seasoned operators alike, it's one of the most familiar sounds on the VHF/UHF bands: the crackle of a squelch tail, a clear voice identifying themselves, and the call for check-ins.

Weekly repeater nets are the heartbeat of BVRC and our local amateur radio community. While individual conversations (known as ragchews) are great, a structured net transforms a scattered group of operators into an organized, efficient communication network. Whether you are looking to test out a new antenna, improve your operating etiquette, or prepare for emergencies, jumping into a local repeater net is the perfect place to start.

Regularly checking-in to these scheduled gatherings offers several key advantages:

- **Equipment Testing –** It is the ultimate weekly diagnostic check. A net gives you immediate feedback on how your signal sounds, your battery health, and whether your signal is successfully hitting the repeater.
- **Skill Building –** Operating under the direction of a Net Control Station (NCS) teaches you how to keep transmissions short, clear, and focused.
- **Community & Networking –** It enables you to put a face to a call sign. Regular participation helps you learn who the active operators are in your neighborhood and who has specific technical expertise.

There are three primary types of repeater nets:

- **Weekly club nets –** These nets can consist of different objectives such as being beginner-friendly by assisting newcomers that have just obtained their license, swapping club news, members checking-in for comments, potential traffic handling, etc.
- **ARES / Emergency practice –** Nets that train operators for disaster scenarios, testing their backup equipment, and conduct mock or simulated emergency tests. These nets are usually quite formal, fast-paced and highly disciplined.
- **Skywarn / weather nets –** These nets are activated during severe weather events to relay real-time ground observations from storm spotters to each other locally and/or the National Weather Service. These type of nets are highly strict, high-priority, and focused strictly on real-time weather data.
  (NOTE: The only net of this type in NW Arkansas is conducted on the same link system that the BVRC HAM 101 Net uses each Monday evening, - The NWA Skywarn Net. If you want more information on joining this net, its objective, spotter training, spotter reporting, and other vital elements of storm spotting, full information can be found at: **www.nwaskywarn.com/.)**

At one time or another during each week, you will find at least one of these type nets in operation that are BVRC related.

If you are new to nets, “mic fright” is entirely normal. The best way to overcome it is to follow the standard operating procedure:

STEP 1 – Tune in a few minutes early. Listen to the Net Control Station's opening script. They will explain exactly how they want you to check in.

STEP 2. – Wait for the call. Do not just throw-in your call sign whenever. Wait for the NCS to specifically ask for "stations with or without traffic", “mobile or portable stations”, or “general check-ins”.

STEP 3 – State Your Call Sign Clearly. When recognized, key up, pause briefly for a few seconds so the repeater doesn't cut off your first words, and state your call sign clearly using standard phonetics (e.g., Alpha, Bravo, Charlie, Delta, etc.), followed by your name and location.

STEP 4 – Yield to Net Control Once. Then, hand the control right back to the NCS. Never initiate a direct conversation with another station on the net without explicitly asking Net Control for permission first.

EXCEPTION – If you have immediate, life-safety emergency traffic during a live net, you do not need to wait your turn. State your call sign and use the words "Break" or "Emergency" during a pause in transmission. Net Control will instantly halt the net to handle your priority traffic.

A NOTE TO NEWCOMERS – Joining a local amateur radio repeater net is one of the best ways for newcomers to overcome microphone fright. Nets provide a structured, welcoming environment where participants check in one at a time, making it easier to know when to speak and what to say. Most Net Control Station operators are happy to guide first-time participants, and experienced operators understand that everyone was new once. A simple check-in with your callsign and a brief greeting is all that's expected, helping build confidence with every net session.

As you become a regular participant, speaking on the air begins to feel as natural as talking with friends. Listening to how others communicate helps you learn good operating practices, proper radio etiquette, and common procedures without feeling overwhelmed. Each successful transmission reinforces your confidence and before long, you'll find yourself joining conversations, asking questions, and encouraging the next generation of amateur radio newcomers to key up the microphone for the first time.

The weekly schedule for BVRC Nets is on page 2 of each monthly issue of The Signal. If you are unfamiliar or confused about how to program the repeaters into your handheld or mobile unit, complete the form on the Elmer 911 tab on the BVRC website (https://bellavistaradioclub.org/elmer-911/) and usually within 12-24 hours, you’ll receive a reply with helpful information, or contact information of one of our club Elmers (mentors).

A NOTE TO EXPERIENCED OPERATORS – If you haven’t checked-in to a BVRC net in a while, dust off that microphone and join in. Nets only work if the community shows up. The next time you hear a call for check-ins on the repeater, don't just sit back and monitor. Key up, say hello, and keep the airwaves alive.

See you on the nets!

Tucked away in the front of every Radio Amateur's Handbook published by the American Radio Relay League (ARRL) since the late 1920s is a short, foundational text known as the Radio Amateur's Code. It outlines the six pillars of the hobby: the ideal radio amateur is considerate, loyal, progressive, friendly, balanced, and.....patriotic.

For nearly a century, that sixth clause has read: "The Radio Amateur is PATRIOTIC... station and skill always ready for service to country and community." But in an era of polarized politics and digital modes, what does it actually mean to be a "patriotic" ham? Is it flying a massive American flag from your HF tower? Is it checking into specialized military-affiliated nets? True patriotism in amateur radio isn't about flag-waving or political grandstanding – in fact, on-air political debates are widely considered poor operating practice. Instead, ham radio patriotism is quiet, hands-on, and deeply rooted in the concept of *public service and global goodwill*.

The core of radio patriotism lies in a paradox: it is an independent, decentralized network that serves as the ultimate insurance policy for the state. When massive hurricanes, wildfires, or grid failures tear through traditional infrastructure, cellular towers go dark, fiber-optic lines snap, and internet routing centers flood. In those fragile hours, the state relies on citizens who have spent their weekends tinkering with wire antennas, backup batteries, different radios, and emergency communications training.

Through networks like the Amateur Radio Emergency Service (ARES) and the Radio Amateur Civil Emergency Service (RACES), hams stand in the gap. They provide critical communication links for local police, hospitals, and emergency management agencies.

for local police, hospitals, and emergency management agencies.

This isn't just community service – it's an act of national defense. By keeping your station functional on generator, solar, or battery power, practicing your traffic-handling skills on weekly nets, and staying prepared to operate "off the grid," you are personally fortifying your country against disaster. In essence, you are ensuring that your community is never entirely cut off from the rest of the nation.

There is also a profound, quiet patriotism in keeping a nation's technical edge sharp.

Amateur radio has long been a gateway for future engineers, computer scientists, and aerospace innovators. When a ham helps a teenager build their first three-transistor radio or explains how a signal bounces off the ionosphere, they are actively investing in the nation's intellectual capital.

In a world where technology is increasingly consumed through black-box consumer devices (such as the "wonderful" smartphone) where few understand the sorcery inside, hams remain the guardians of practical physics. Knowing how to build a working antenna out of a spare piece of wire or pull a weak signal out of the atmospheric static is a form of self-reliance that strengthens the fabric of the country.

Perhaps the most beautiful form of ham patriotism is citizen diplomacy. When you fire up an HF transceiver and call CQ, your voice carries across borders without a passport.

On the airwaves, you represent your country to the world.

A friendly, polite exchange with a fellow hobbyist in Japan, Ukraine, or Brazil does more for international relations than a dozen political speeches. By adhering to standard operating procedures, helping a distant operator log a difficult contact, and also sometimes exchanging QSL cards, you show the world the best version of your nation: collaborative, technically proficient, and curious about the world.

Being a patriotic ham means ensuring that when your country – or your neighbor – needs a voice in the dark, your station and your skills are ready to answer the call.

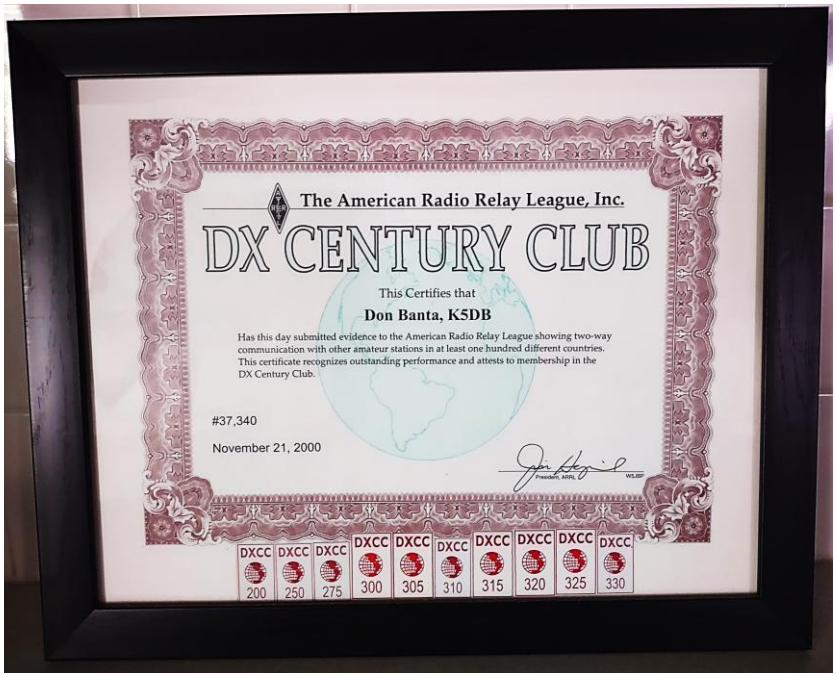
Remember:

"It's not the class of license that the amateur holds – but the class of amateur that holds the license."

For generations of amateur radio operators, few accomplishments have carried as much prestige and personal satisfaction as earning the ARRL DXCC award. More than a certificate on the wall, DXCC represents a journey across continents, cultures, propagation cycles, and personal challenges. It is a pursuit that has captivated hams since the earliest days of international radio communication and remains as relevant today as ever.

What Is DXCC?

The DX Century Club (DXCC) award, administered by the American Radio Relay League (ARRL), recognizes amateur radio operators who confirm contacts with at least 100 qualifying DXCC entities. While many newcomers assume these entities are simply countries, the DXCC list includes a variety of political and geographic entities that meet specific criteria established by the ARRL. It is the most prestigious award in amateur radio. (Note: You must be an ARRL member to apply for the award.)


The American Radio Relay League, Inc.
DX CENTURY CLUB
This Certifies that
Don Banta, K5DB
Has this day submitted evidence to the American Radio Relay League showing two-way communication with other amateur stations in at least one hundred different countries. This certificate recognizes outstanding performance and attests to membership in the DX Century Club.
#37,340
November 21, 2000
DXCC 200
DXCC 250
DXCC 275
DXCC 300
DXCC 305
DXCC 310
DXCC 315
DXCC 320
DXCC 325
DXCC 330

Today, the DXCC program contains 340 current entities spread across every corner of the globe. Some are major nations with active amateur radio communities, while others are remote islands, isolated territories, or rarely activated locations that may appear on the air only occasionally.

Achieving the first 100 confirmed entities earns the coveted DXCC award, but for many operators, that milestone marks only the beginning.

The Allure of the Chase – At its heart, DXing is a combination of skill, patience, and opportunity. One evening, an operator may effortlessly work stations across Europe. The next, they may spend hours trying to pull a weak signal from a distant Pacific island out of the band noise.

The challenge is what make DXCC so compelling.

Every contact tells a story. A station worked during a rare opening on 10- or 6-meters. A difficult contact completed through fading signals on 160-meters. A long-awaited DXpedition to a remote island finally appearing on the spotting website after years of absence...and waiting.

DXCC transforms ordinary operating into a long-term adventure. The goal is clear, but the path is never predictable.

Learning the Science Behind Propagation – Pursuing DXCC naturally encourages operators to deepen their understanding of radio propagation.

Successful DXers learn how solar activity affects high-frequency bands, how gray-line propagation can open unexpected paths, and how seasonal changes influence communication opportunities. They become students of the ionosphere, monitoring solar flux, sunspot numbers, and geomagnetic conditions with the same interest that others follow weather forecasts. The reward for that knowledge is often immediate. Understanding when and where signals are likely to travel can mean the difference between hearing a rare station and adding a new entity into the log.

Technology Meets Tradition – While the spirit of DXCC remains unchanged, modern technology has transformed the pursuit.

Online spotting networks, websites, and apps instantly alert operators when rare entities appear on the air. Digital modes such as FT8 enable operators to make contacts under conditions that would have been impossible just a few decades ago. Electronic logging systems simplify record keeping, and online confirmation systems dramatically reduce the time required to verify contacts.

The introduction of Logbook of The World (LotW) has been particularly significant. Electronic confirmations that once required months – or even years – of waiting for QSL cards can now arrive in minutes. Yet despite these advances, the essence of DXing remains rooted in operator skill. Antenna design, station optimization, operating technique, and propagation knowledge still play decisive roles in success.

The Role of DXpeditions – No discussion of DXCC would be complete without mentioning DXpeditions.

These organized efforts send teams of amateur radio operators to rare and often difficult-to-access locations. Transporting equipment to remote islands, enduring harsh weather conditions, and operating around the clock, DXpedition teams make some of the rarest entities available to the amateur radio world.

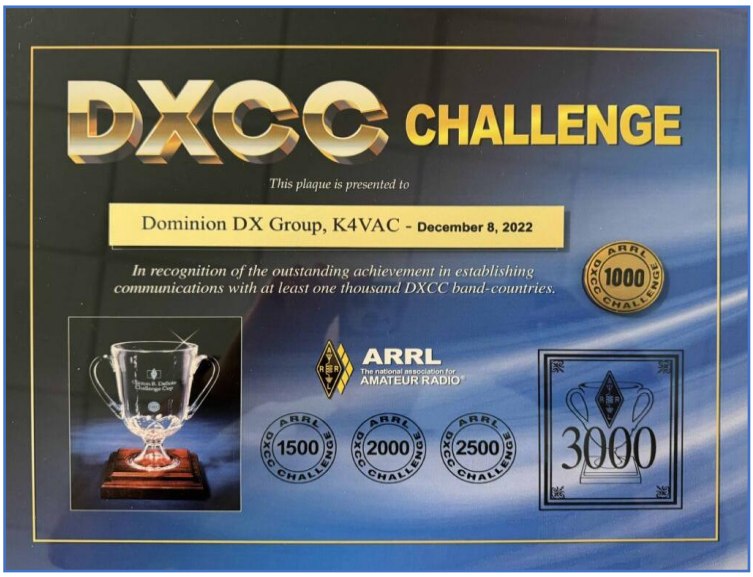
For DXCC hunters, the announcement of a major DXpedition often becomes a highly anticipated event.

Operators prepare their stations, study propagation forecasts, and clear their schedules in hopes of logging a new entity. The excitement generated by a rare activation can unite thousands of operators worldwide in a shared pursuit.

Beyond the First 100 - While earning DXCC is a significant accomplishment, many operators continue far beyond the initial award.

5 Band DXCC Award
The Providence Radio Assoc. Inc., W1OP
For successful confirmation of two-way radio contacts
made with Amateur Radio stations in no less than
100 DXCC entities on each of the following
five amateur bands: Eighty Meters, Forty Meters,
Twenty Meters, Fifteen Meters, and Ten Meters.
ARRL
#9276

Endorsement stickers are available for additional confirmed entities, and reaching Honor Roll status represents one of amateur radio's highest achievements. Some DXers pursue DXCC on multiple bands, multiple modes, or using low-power equipment. Others focus on challenging categories such as 160-meter DXCC or DXCC with simple wire antennas.



There are also other exciting challenges in the DXCC program, such as working and confirming 100 countries on five different bands and achieving 5BDXCC. After achieving the initial award on the 5 main bands of 80-, 40-, 20-, 15-, and 10-meters, the pursuit can continue with obtaining endorsement medallions for 160-, 30-, 17-, 12-, and 6-meters.

Then, there is the ultimate quest: The DXCC Challenge Award. To obtain this award, each time you work and confirm a new country on a new band (regardless of modes used) you are credited with 1 point for that country on that band. To achieve your first Challenge Award, you must accumulate 1000 points. Endorsement medallions can be acquired for 1500, 2000, 2500, and 3000 points.

The beauty of the program lies in its flexibility. Each operator can define personal goals and measure success according to their own interests and station capabilities.

A Global Community - Perhaps the greatest reward of pursuing DXCC is the connection it creates with people around the world. Every confirmed contact represents a brief conversation across borders, languages, and cultures. Operators who may never meet face-to-face share a common enthusiasm for radio and communication.

Operators prepare their stations, study propagation forecasts, and clear their schedules in hopes of logging a new entity. The excitement generated by a rare activation can unite thousands of operators worldwide in a shared pursuit.

What Kind of Station Does It Take? – And now a word about stations.....Many newcomers assume that earning DXCC requires a towering antenna farm, legal-limit amplifiers, and acres of property. While a large "big gun" station certainly has its advantages, it is far from a requirement. Thousands of operators have earned DXCC — and many endorsements — with modest stations using 100 watts or less, and simple wire antennas, verticals, or compact beams. Patience, good operating skills, and persistence often outweigh sheer station size. Taking advantage of favorable band conditions and knowing when and where to listen can make a modest station surprisingly successful.

Regardless of the equipment sitting in your shack, one truth remains constant: Your success in working new DX entities will largely depend on *the quality of your antenna system*. Even the best transceiver cannot compensate for an inefficient antenna. Investing time in building, improving, or properly installing an antenna often yields greater results than purchasing more expensive radios or amplifiers. Whether it's a carefully installed dipole, a well-grounded vertical, or a small directional beam, an efficient antenna will improve both your transmitted signal and your ability to hear weak DX stations. No matter what kind of station you operate, *the antenna is the heart of your station* and your DX capability—and often the deciding factor in whether that rare entity makes it into your log.

The Journey Continues - The appeal of the ARRL DXCC award has endured for nearly a century because it embodies the very essence of amateur radio: exploration, learning, technical achievement, and international friendship. For newcomers, DXCC provides a clear and exciting objective. For experienced operators, it offers a lifelong challenge that evolves with changing conditions, new technologies, and personal ambitions.

Whether the goal is the first 100 entities or a place on the Honor Roll, the pursuit of DXCC remains one of amateur radio's most rewarding adventures.

Brunei Darussalam, commonly known as Brunei, is a country in Southeast Asia, situated on the northern coast of the island of Borneo. Apart from its coastline on the South China Sea, it is completely surrounded by the Malaysian state of Sarawak, with its territory bifurcated by the Sarawak district of Limbang. Brunei is the only sovereign state entirely on Borneo. The remainder of the island is divided between its multi-landmass neighbors of Malaysia and Indonesia. As of 2025, the country had a population of 466,330, of whom approximately 64,409 reside in the capital and largest city of Bandar Seri Begawan. Its official language is Malay, and Sunni Islam is the state religion of the country, although other religions are nominally tolerated.

The government of Brunei is an absolute monarchy ruled by the Sultan, and it implements a fusion of English common law and jurisprudence inspired by Islam, including sharia.

According to history, Brunei was founded around 1400 AD.

The climate of Brunei is tropical equatorial that is a tropical rainforest climate[75] more subject to the Intertropical Convergence Zone than the trade winds and with no or rare cyclones.

Pertaining to amateur radio, there is an amateur club in Brunei, located in the capital. The Brunei Darussalam Amateur Radio Association – BDARA – possesses the club call V85O. However, club on-air activity is fairly sparse. They do hit the airwaves for a few contests and special events (ex: V850IARU for the IARU international contest). The only regularly active ham that I know of is Didier – V85NPV. Didier is originally from France (F5NPV). He has resided in Brunei since 2022. His shack basically consists of 80% homebrew equipment with the main antenna being a spider quad beam. He is a former ham radio fanatic during the eighties and nineties with the following past callsigns : F5NPV , FR4FP and FM5GG, but due to time consuming activities he had to depart from the hobby for a while. He now has more spare time and is able to be back on the air . He says, "As a former Radioman in the navy I am a mostly a CW operator but using also SSB, FT8 and many other digital modes." Brunei is ranked #143 on the Most Wanted List, so it is fairly rare. If you haven't worked V85NPV, hopefully you will in the near future.

Location of Brunei Darussalam

My Brunei QSL from V85NPV

THE SIGNAL newsletter is published monthly for members of the Bella Vista Radio Club. BVRC denies any responsibility for the accuracy or content of articles published herein. The opinions expressed are solely those of the authors. BVRC neither necessarily endorses nor opposes said opinions, brand names, products, businesses, organizations, etc. Submission of any amateur radio related articles is encouraged and welcomed. Submit your article to the editor: Don Banta-K5DB, 3407 Diana St., Springdale, AR 72764 (or e-mail to: arsk5db@gmail.com) for publication in THE SIGNAL. The deadline for articles is the 10th of each month.